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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/887,520	06/25/2001	Irit Loy	LOY=5	5751

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EXAMINER

LEROUX, ETIENNE PIERRE

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 08/13/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/887,520

Applicant(s)

LOY ET AL.

Examiner

Etienne P LeRoux

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8. 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites "receiving a request submitted to the parallel file system by the user application on the second node to perform a file operation on a file in one of the volumes of data storage." It is unclear whether the user application is receiving the request or initiating the request.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 13, 16-22, 30, 33-39, 47, 48, 50 and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat No 6,065,065 issued to Murakami et al (hereafter Murakami '065).

Regarding claims 1, 18 and 35, Murakami '065 discloses :

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initiating a session of a data management (DM) application on a first one of the nodes [Fig 10, 31, I/O node] ;

running a user application [Fig 17, 14a and 14b] on a second one of the nodes [Fig 17, 1a – calculation node]

receiving a request [Fig 14, S1 – open operation, col 10, line 49] command per col 6, line 6]

submitted to the parallel file system [Figs 16 and 17] by the user application on the second node to perform a file operation on a file in one of the volumes of data storage;

sending a DM event message from the second node to the first node responsive to the request, for processing by the data management application on the first node. [Fig 14, S6]

Regarding claims 2, 19 and 36, Murakami '065 discloses wherein initiating the session comprises initiating the session in accordance with a data management application programming interface (DMAPI) of the parallel file system, and wherein receiving the request comprises processing the request using the DMAPI [metafile 21, Fig 17]

Regarding claims 3, 20 and 37, Murakami '065 discloses receiving and processing the event message at the first node using one or more functions of the DMAPI called by the data management application [processes in a calculation node, Fig 15].

Regarding claims 4, 21 and 38, Murakami '065 discloses sending the event message comprises sending the message for processing in accordance with a disposition specified by the data management application using the DMAPI for association with an event generated by the file operation [Fig 14, S6].

Regarding claims 5, 22 and 39, Murakami '065 discloses receiving a response to the event message from the data management application on the first node; and performing the file

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operation requested by the user application on the second node subject to the response from the data management application on the first node [Fig 14, S5].

Regarding claims 13, 30 and 47, Murakami '065 discloses wherein initiating the session of the data management application comprises initiating a data migration application, so as to free storage space on at least one of the volumes of data storage [col 2, lines 1-8].

Regarding claims 16, 33 and 50, examiner maintains that a data filed uniquely identifying the second node is inherent.

Regarding claims 17, 34 and 51, Murakami '065 discloses receiving from one of the nodes other than the first one of the nodes a call for a data management application programming interface (DMAPI) function in connection with the session, and performing the function only if it does not change a state of the session or of an event associated with the session [Fig 17].

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6, 23 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami '065 as applied to claim 5 above, and further in view of Pub No US 2002/0026605 issued to Terry (hereafter Terry '605).

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Regarding claim 6, Murakami '065 discloses the essential elements of the claimed invention as noted above except for receiving the request comprises submitting the request using a file operation thread running on the second node. Terry '605 discloses receiving the request comprises submitting the request using a file operation thread running on the second node [paragraph 0058]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Murakami '65 to include receiving the request comprises submitting the request using a file operation thread running on the second node as taught by Terry '605 for the purpose of defining startup data and all computer registry data [paragraph 0058].

Furthermore, regarding claims 6 and 23, examiner maintains that blocking the thread until the response to the event message is received from the first node is well-known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Murakami '065 to include blocking the thread until the response to the event message is received from the first node for the purpose of synchronizing parallel computer system operations.

7. Claims 7, 9-12, 14, 15, 24, 26-29, 31, 32, 41, 43-46 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami '065 as applied to claim 5 above, and further in view of Pub No US 2002/0056003 issued to Goswami (hereafter Goswami '003).

Regarding claims 7, 9, 10-12, 14, 15, 24, 26-29, 31, 32, 41, 43-46 and 49 Murakami '065 discloses the essential elements of the claimed invention except for sending the event message comprises passing the event message from a source physical file system (PFS) on the second

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node to a session PFS on the first node, and wherein receiving the response comprises passing a response message from the session PFS to the source PFS. Goswami '003 discloses sending the event message comprises passing the event message from a source physical file system (PFS) on the second node to a session PFS on the first node, and wherein receiving the response comprises passing a response message from the session PFS to the source PFS [paragraph 0024]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Murakami '065 to include sending the event message comprises passing the event message from a source physical file system (PFS) on the second node to a session PFS on the first node, and wherein receiving the response comprises passing a response message from the session PFS to the source PFS as taught by Goswami '003 for the purpose of creating a session for a plurality of participants [paragraph 0024].

Regarding claims 9 and 10, examiner maintains that it would have been obvious to one of ordinary skill in the art to further modify Goswami '003 to include receiving a second request and sending a second event message to a second node. The ordinary skilled artisan would have been motivated to modify Goswami to include receiving a second request and sending a second event message to a second node for the purpose of creating a session for a plurality of participants [paragraph 0024]

Regarding claim 11, examiner maintains that it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Goswami '003 to include running a further user application instance on a further one of the nodes and receiving a further request submitted to the parallel file system by the further user application instance to perform a further file operation and sending a further event message responsive to the further

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request for processing by the data management application of the first node. The ordinarily skilled artisan would have been motivated to modify Goswami '003 to include running a further user application instance on a further one of the nodes and receiving a further request submitted to the parallel file system by the further user application instance to perform a further file operation and sending a further event message responsive to the further request for processing by the data management application of the first node for the purpose of creating a session for a plurality of participants [paragraph 0024].

Regarding claim 12, examiner maintains that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Goswami '003 to include the other node is the first node. The ordinarily skilled artisan would have been motivated to modify Goswami '003 to include the other node is the first node for the purpose performing a calculation procedure [Fig 16]

8. Claims 8, 25 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami '065 as applied to claim 1 above, and further in view of Pub No US 2003/0097517 issued to Haneda (hereafter Haneda'517).

Regarding claims 8, 25 and 42, Murakami '065 discloses the essential elements of the claimed invention except for receiving the event message at the first node; obtaining a data management access right from a physical file system (PFS) at the first node responsive to the event message; and processing the event message using the access right. Haneda '517 discloses receiving the event message at the first node; obtaining a data management access right from a physical file system (PFS) at the first node responsive to the event message; and processing the

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event message using the access right [paragraph 0034]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Murakami '065 to include receiving the event message at the first node; obtaining a data management access right from a physical file system (PFS) at the first node responsive to the event message; and processing the event message using the access right as taught by Haneda '517 for the purpose of managing logical sequential order of the files in the recording medium [paragraph 0034].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne LeRoux whose telephone number is (703) 305-0620.

The examiner can normally be reached on Monday – Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (703) 308-1436.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Etienne LeRoux

August 7, 2003 